

Appendix C:

The Secretary of the Interior's STANDARDS FOR REHABILITATION And Guidelines for Historic Buildings

INTRODUCTION

The Secretary of the Interior is responsible for establishing standards for all programs under the developmental authority and for advising Federal agencies of the preservation of historic properties listed or eligible for listing in the National Register of Historic Places. In partial fulfillment of this responsibility, the Secretary of the Interior's Standards for Historic Preservation Projects have been developed to guide work undertaken on historic buildings – there are separate standards for acquisition, protection, stabilization, preservation, rehabilitation, restoration, and reconstruction. The Standards for Rehabilitation (codified in 36 CFR 67) comprise that section of the overall preservation project standards and addresses the most prevalent treatment. “Rehabilitation” is defined as the “process of the returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values.”

Initially developed by the Secretary of the Interior to determine the appropriateness of proposed project work on registered properties within the Historic Preservation Fund grant-in-aid program. The Standards for Rehabilitation have been widely used over the years – particularly to determine if a rehabilitation qualifies as a Certified Rehabilitation for Federal tax purposes. In addition, the Standards have guided federal agencies in carrying out their historic preservation responsibilities for properties in Federal ownership or control; and State and local officials in reviewing both Federal and nonfederal rehabilitation proposals. They have also been adopted by historic district and planning commissions across the country.

The intent of the Standards is to assist the long-term preservation of a property's significance through the preservation of historic materials and features. The Standards pertain to historic buildings of all materials, construction types, sizes and occupancy and encompass the exterior and interior of the buildings. They also encompass related landscape features and the building's site and environment, as well as attached, adjacent, or related new construction. To be certified for Federal tax purposes, a rehabilitation project must be determined by the Secretary to be consistent with the historic character of the structure(s), and where applicable, the district in which it is located.

The Secretary of the Interior is responsible for establishing professional standards and providing advice on the preservation and protection of all cultural resources listed on or eligible for the National Register of Historic Places.

The Secretary of the Interior's Standards for the Treatment of Historic Properties, initially developed in 1975 and revised in 1983 and 1992, are intended to be applied to a wide variety of resource types, including buildings, sites, structures, objects and districts. The Standards are not codified as program regulations and may be used as a guide by anyone planning work on historic properties.

TREATMENTS

There are Standards for four distinct, but interrelated, approaches to the treatment of historic properties – Preservation, Rehabilitation, Restoration, and Reconstruction. **Preservation** focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time. (Protection and Stabilization have now been consolidated under this treatment.) **Rehabilitation** acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character. **Restoration** is undertaken to depict a property at a particular period of time in its history, while removing evidence of other periods. **Reconstruction** re-creates vanished or non-surviving portions of a property for interpretive purposes.

In summary, the simplification and sharpened focus of these revised sets of treatment Standards is intended to assist users in making sound historic preservation decisions. Choosing an appropriate treatment for a historic property, whether preservation, rehabilitation, restoration, or reconstruction is critical. This choice always depends on a variety of factors, including the property's historical significance, physical condition, proposed use, and intended interpretation.

REHABILITATION

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

STANDARDS FOR REHABILITATION

1. A property shall be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property shall be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, shall not be undertaken.
4. Changes to a property that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and where possible, materials. Replacement of missing features shall be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, shall be undertaken using the gentlest means possible. Treatments that cause damage to historic materials shall not be used.
8. Archeological resources shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and shall be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

REHABILITATION AS A TREATMENT

When repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when its depiction at a particular period of time is not appropriate, Rehabilitation may be considered as a treatment. Prior to undertaking work, a documentation plan for Rehabilitation should be developed.

PRESERVATION

Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.

STANDARDS FOR PRESERVATION

1. A property shall be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships. Where a

treatment and use have not been identified, a property shall be protected and, if necessary, stabilized until additional work may be undertaken.

2. The historic character of a property shall be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces and spatial relationships that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place and use. Work needed to stabilize, consolidate and conserve existing historic materials and features shall be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
4. Changes to a property that have acquired historical significance in their own right shall be retained and preserved.
5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. The existing condition of historic features shall be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair of limited replacement of a distinctive feature, the new material shall match the old in composition, design, color and texture.
7. Chemical or physical treatments, if appropriate, shall be undertaken using the gentlest means possible. Treatments that cause damage to historic materials shall not be used.
8. Archeological resources shall be protected and preserved in place. If such resources must be disturbed, mitigation measures shall be undertaken.

PRESERVATION AS A TREATMENT

When the property's distinctive materials, features and spaces are essentially intact and thus convey the historic significance without extensive repair or replacement; when depiction at particular a period of time is not appropriate; and when a continuing or new use does not require additions or extensive alterations, Preservation may be considered as a treatment. Prior to undertaking work, a documentation plan for Preservation should be developed.

RESTORATION

Restoration is defined as the act or process of accurately depicting the form, features and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

STANDARDS FOR RESTORATION

- 1. A property shall be used as it was historically or be given a new use which reflects the property's restoration period.**
- 2. Materials and features from the restoration period shall be retained and preserved. The removal of materials or alteration of features, spaces and spatial relationships that characterize the period shall not be undertaken.**
- 3. Each property shall be recognized as a physical record of its time, place and use. Work needed to stabilize, consolidate and conserve materials and features from the restoration period shall be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.**
- 4. Materials, features, spaces and finishes that characterize other historical periods shall be documented prior to their alteration or removal.**
- 5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize the restoration period shall be preserved.**
- 6. Deteriorated features from the restoration period shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture and where possible, materials.**
- 7. Replacement of missing features from the restoration period shall be substantiated by documentary and physical evidence. A false sense of history shall not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.**
- 8. Chemical or physical treatments, if appropriate, shall be undertaken using the gentlest means possible. Treatments that cause damage to historic materials shall not be used.**
- 9. Archeological resources affected by a project shall be protected and preserved in place. If such resources must be disturbed, mitigation measures shall be undertaken.**
- 10. Designs that were never executed historically shall not be constructed.**

RESTORATION AS A TREATMENT

When the property's design, architectural, or historical significance during a particular period of time outweighs the potential loss of extant materials, features, spaces and finishes that characterize other historical periods, when there is substantial physical and documentary evidence for the work; and when contemporary alterations and additions are not planned, Restoration may be considered as a treatment. Prior to undertaking work, a particular period of

time, i.e., the restoration period should be selected and justified and a document plan for Restoration developed.

RECONSTRUCTION

Reconstruction is defined as the act or process of depicting, by means of new construction, the form, features and detailing of a non-surviving site, landscape, building, structure or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

STANDARDS FOR RECONSTRUCTION

- 1. Reconstruction shall be used to depict vanished or non-surviving portions of a property when documentary and physical evidence is available to permit accurate reconstruction with minimal conjecture and such reconstruction is essential to the public understanding of the property.**
- 2. Reconstruction of a landscape, building, structure or object in its historic location shall be preceded by a thorough archeological investigation to identify and evaluate those features and artifacts which are essential to an accurate reconstruction. If such resources must be disturbed, mitigation measure shall be undertaken.**
- 3. Reconstruction shall include measures to preserve any remaining historic materials, features and spatial relationships.**
- 4. Reconstruction shall be based on the accurate duplication of historic features and elements substantiated by documentary or physical evidence rather than on conjectural designs or the availability of different features from other historic properties. A reconstructed property shall re-create the appearance of the non-surviving historic property in materials, design, color and texture.**
- 5. A reconstruction shall be clearly identified as a contemporary re-creation.**
- 6. Designs that were never executed historically shall not be constructed.**

RECONSTRUCTION AS A TREATMENT

When a contemporary depiction is required to understand and interpret a property's historic value (including the re-creation of missing components in a historic district or site); when no other property with the same associative value has survived; and when sufficient historical documentation exists to ensure an accurate reproduction, Reconstruction may be considered as a treatment. Prior to undertaking work, a documentation plan for Reconstruction should be developed.

HISTORIC RESOURCE

The Secretary of the Interior's Standards for the Treatment of Historic Properties may be applied to one historic resource type or a variety of historic resource types; for example, a project may include a complex of buildings such as a house, garage and barn; the site, with a designed landscape, natural features, and archeological components; structures such as a system of roadways and paths or a bridge; and objects such as fountains and statuary.

HISTORIC RESOURCE TYPES & EXAMPLES

Buildings: houses, barns, stables, sheds, garages, courthouses, city halls, social halls, commercial buildings, libraries, factories, mills, train depots, hotels, theaters, stationary mobile homes, schools, stores and churches.

Site: habitation sites, funerary sites, rock shelters, village sites, hunting and fishing sites, ceremonial sites, petroglyphs, rock carvings, ruins, gardens, grounds, battlefields, campsites, sites of treaty signings, trails, areas of land, shipwrecks, cemeteries, designed landscapes, and natural features, such as springs and rock formations and land areas having cultural significance.

Structure: bridges, tunnels, gold dredges, firetowers, canals, turbines, dams, power plants, corn-cribs, silos, roadways, shot towers, windmills, grain elevators, kilns, mounds, cairns, palisade fortifications, earthworks, railroad grades, systems of roadways and paths, boats and ships, railroad locomotives and cars, telescopes, carousels, bandstands, gazebos and aircraft.

Object: sculpture, monuments, boundary markers, statuary and fountains.

District: college campuses, central business districts, residential areas, commercial areas, large forts, industrial complexes, civic centers, rural villages, canal systems, collection of habitation and limited activity sites, irrigation systems, large farms, ranches, estates, or plantations, transportation networks and large landscaped parks.

TECHNICAL GUIDANCE PUBLICATIONS

The National Park Service, U.S. Department of the Interior, conducts a variety of activities to guide federal agencies, States, and the general public in historic preservation project work. In addition to establishing standards and guidelines, the Service develops, publishes, and distributes technical information on appropriate preservation treatments, including Preservation Briefs, case studies, and Preservation Tech Notes.

A catalog of Historic Preservation Publications with stock numbers, prices, and ordering information may be obtained by writing: Preservation Assistance Division, Technical Preservation Services, P.O. Box 37127, Washington, D.C. 20013-7127.

GUIDELINES FOR REHABILITATING HISTORIC BUILDINGS

The Guidelines were initially developed in 1997 to help protect property owners, developers, and Federal managers apply the Secretary of the Interior's "Standards for Rehabilitation" during the project planning stage by providing general design and technical recommendations. Unlike the Standard's the Guidelines are not codified as program requirements. Together with the "Standards for Rehabilitation" they provide a model process for owners, developers, and Federal agency managers to follow.

It should be noted at the outset that the Guidelines are intended to assist in applying the Standards to projects generally; consequently, they are not meant to give case-specific advice or address exceptions or rare instances. For example, they cannot tell an owner or developer which features of their historic building are important in defining the historic character and must be preserved – although examples are provided in each section- or which features could be altered, if necessary, for the new use. This kind of careful case-by-case decision making is best accomplished by seeking assistance from qualified historic preservation professionals in the planning stage of the project. Such professionals include architects, architectural historians, historians, archeologists, and others who are skilled in the preservation, rehabilitation, and restoration of historic properties.

The Guidelines pertain to historic buildings of all sizes, materials, occupancy, and construction types; and apply to interior and exterior work as well as new exterior additions. Those approaches, treatments, and techniques that are consistent with the Secretary of the Interior's "Standards for Rehabilitation" are listed in the **"Recommended"** column on the left; those approaches, treatments, and techniques which could adversely affect a building's historic character are listed in the **"Not Recommended"** column on the right.

To provide clear and consistent guidance for owners, developers, and federal agency managers to follow, the "Recommended" courses of action in each section are listed in the order of historic preservation concerns so that a rehabilitation project may be successfully planned and completed – one that, first, assures the preservation of a building's important or "character-defining" architectural materials and features and, second, makes possible an efficient contemporary use. Rehabilitation guidance in each section begins with protection and maintenance, that work, which should be maximized in every project to enhance overall preservation goals. Next, where some deterioration is present, repair of the building's historic materials and features is recommended. Finally, when deterioration is so extensive that repair is not possible, the most problematic area of work is considered: replacement of historic materials and features with new materials.

To further guide the owner and developer in planning a successful rehabilitation project, those complex design issues dealing with new use requirements such as alterations and additions are highlighted at the end of each section to underscore the need for particular sensitivity in these areas.

Identify, Retain, and Preserve

The guidance that is basic to the treatment of all historical buildings – **identifying, retaining, preserving** the form and detailing of those architectural materials and features that are important in defining the historic character – is always listed in the “Recommended” column. The parallel “Not Recommended” column lists the types of actions that are most apt to cause the diminution or even loss of the building’s historic character. It should be remembered, however, that such loss of character is just as often caused by the cumulative effect of a series of actions that would seem to be minor interventions. Thus, the guidance in all of the “Not Recommended” columns must be viewed in that larger context, e.g. for the total impact on a historic building.

Protect and Maintain

After identifying those materials and features that are important and must be retained in the process of rehabilitation work, then **protecting and maintaining** them are addressed. Protection generally involves the least degree of intervention and is preparatory to the other work. For example, protection includes the maintenance of historic material through treatments such as rust removal, caulking, limited paint removal, and re-application of protective coatings; the cyclical cleaning of roof gutter systems; or installation of fencing, protective plywood, alarm systems and other temporary protective measures. Although a historic building will usually require more extensive work, an overall evaluation of its physical condition should always begin at this level.

Repair

Next, when the physical condition of character-defining materials and features warrants additional work **repairing** is recommended. Guidance for the repair of historic materials such as masonry, wood, and architectural metals again begins with the least degree of intervention possible such as patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading them according to recognized preservation methods. Repairing also includes the limited replacement in kind- or with compatible substitute material – of exclusively deteriorated or missing parts of features when there are surviving prototypes (for example, brackets, dentils, steps, plaster, or portions of slate or tile roofing). Although using the same kind of material is always the preferred option, substitute material is acceptable if the form and design, as well as the substitute material itself, convey the visual appearance of the remaining parts of the feature and finish.

Replace

Following repair in the hierarchy, guidance is provided for **replacing** an entire-defining feature with new material because the level of deterioration or damage of materials includes repair (for example, an exterior cornice; an interior staircase; or a complete porch or storefront). If the essential form and detailing are still evident so that the physical evidence can be used to re-establish the feature as an integral part of the rehabilitation project, then its replacement is appropriate. Like the guidance for repair, the preferred option is always replacement of the entire feature in kind, that is, with the same material. Because this option may not always be

technically or economically feasible, provisions are made to consider the use of a compatible substitute material.

It should be noted that, while the National Park service guidelines recommend the replacement of an entire character-defining feature under certain well-defined circumstances, they never recommend removal and replacement with new material of a feature that –although damaged or deteriorated – could reasonably be repaired and thus preserved.

Design for Missing Historic Features

When an entire interior or exterior feature is missing (for example, an entrance, or cast iron facade, or a principal staircase), it no longer plays a role in physically defining the historic character of the building unless it can be accurately recovered in form and detailing through the process of carefully documenting the historical appearance. Where an important architectural feature is missing, its recovery is always recommended in the guidelines as the first or preferred, course of action. Thus, if adequate historical, pictorial, and physical documentation exists so that the feature may be accurately reproduced, and if it is desirable to re-establish the feature as part of the building's historical appearance, then designing and constructing a new feature based on such information is appropriate. However a second acceptable option for the replacement feature in a new design that is compatible with the remaining character-defining features of the historic building. The new design should always take into account the size, scale, and material of the historic building itself and, most importantly, should be clearly differentiated so that a false historical appearance is not created.

Alterations/Additions to Historic Buildings

Some exterior and interior alteration to the historic building are generally needed to assure its use, but it is most important that such alterations do not radically change, obscure, or destroy character-defining spaces, materials, features, or finishes. Alterations may include providing additional parking space on an existing historic building site; cutting new entrances or windows on secondary elevations; inserting an additional floor; installing an entirely new mechanical system; or creating an atrium or light well. Alteration may also include selective removal of buildings or other features of the environment or building site that are intrusive and therefore detract from the overall historic character.

The construction of an exterior addition to a historic building may seem to be essential for the new use, but it is emphasized in the guidelines that such new additions should be avoided, if possible, and considered only after it is determined that those needs cannot be met by altering secondary, i.e., non character-defining interior spaces. If, after a thorough evaluation of interior solutions, an exterior addition is still judged to be the only viable alternative, it should be designed and constructed to be clearly differentiated from the historic building and so that the character-defining features are not radically changed, obscured, damaged, or destroyed.

Additions to historic buildings are referenced within specific sections of the guidelines such as Site, Roof, Structural Systems, etc. but are also considered in more detail in a separate section, **NEW ADDITIONS TO HISTORIC BUILDINGS**.

Health and Safety Code Requirements; Energy Retrofitting

These sections of the rehabilitation guidance address work done to meet health and safety code requirements (for example, providing barrier-free access to historic buildings); or retrofitting measures to conserve energy (for example, installing solar collectors in an unobtrusive location on the site). Although this work is quite often an important aspect of rehabilitation projects, it is usually not part of the overall process of protecting or repairing character-defining features; rather, such work is assessed for its potential negative impact on the building's historic character. For this reason, particular care must be taken not to radically change, obscure, damage, or destroy character-defining materials or features in the process of rehabilitation work to meet code and energy requirements.

Specific information on rehabilitation and preservation technology may be obtained by writing to the National Park Service, at the addresses listed below:

Preservation Assistance Division
National Park Service
P.O. Box 37127
Washington, DC 20013-7127

Cultural Resources Division
Alaska Regional Office
National Park Service
2525 Gamble St.
Anchorage, AK 99503

National Historic Preservation Programs
Western Regional Office
National Park Service
450 Golden Gate Avenue
Box 36063
San Francisco, CA 94102

Division of Cultural Resources
Rocky Mountain Regional Office
National Park Service
655 Parfet St.
P.O. Box 25287
Denver, CO 80225

Preservation Services Division
Southeast Regional Office
National Park Service
75 Spring Street SW, Room 1140
Atlanta, GA 30303

Office of Cultural Programs
Mid-Atlantic Regional Office
National Park Service
Second and Chestnut Streets
Philadelphia, PA 19106

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BUILDING EXTERIOR

Masonry: Brick, stone, terra cotta, concrete, adobe, stucco and mortar

Masonry features (such as brick cornices and door pediments, stone window architraves, terra cotta brackets and railings) as well as masonry surfaces (modeling, tooling, bonding patterns, joint size, and color) may be important in defining the historic character of the building. It should be noted that masonry is among the most susceptible to damage by improper maintenance or repair techniques and by harsh or abrasive cleaning methods. Most preservation guidance on masonry thus focuses on such concerns as cleaning and the process of repointing.

<u>Recommended</u>	<u>Not Recommended</u>
<p>Identifying, retaining, and preserving masonry features that are important in defining the overall historic character of the building such as walls, brackets, railings, cornices, window architraves, door pediments, steps, and columns; and joint and unit size, tooling and bonding patterns, coatings, and color.</p> <p>Protecting and maintaining masonry by providing proper drainage so that water does not stand on flat, horizontal surfaces or accumulate in curved decorative features.</p> <p>Cleaning masonry only when necessary to halt deterioration or remove heavy soiling.</p> <p>Carrying out masonry surface cleaning tests after it has been determined that such cleaning is necessary. Tests should be observed over a sufficient period of time so that both the immediate effects and the long range effects are known to enable selection of the gentlest method possible.</p>	<p>Removing or radically changing masonry features which are important in defining the overall historic character of the building so that, as a result, the character is diminished.</p> <p>Replacing or rebuilding a major portion of the exterior masonry walls that could be repaired so that, as a result, the building is no longer historic and is essentially new construction. Applying paint or other coatings such as stucco to masonry that has been historically unpainted or uncoated to create a new appearance.</p> <p>Removing paint from historically painted masonry.</p> <p>Radically changing the type of paint or coating or its color.</p> <p>Failing to evaluate and treat the various causes of mortar joint deterioration such as leaking roofs or gutters, differential settlement of the building, capillary action, or extreme weather exposure.</p> <p>Cleaning masonry surfaces when they are not heavily soiled to create a new appearance, thus needlessly introducing chemicals or moisture into historic materials.</p> <p>Cleaning masonry surfaces without testing or without sufficient time for testing to be of value.</p>

Masonry (continued) <u>Recommended</u>	<u>Not Recommended</u>
<p>Cleaning masonry surfaces with the gentlest method possible, such as low pressure water and detergents, using natural bristle brushes.</p> <p>Inspecting painted masonry surfaces to determine whether repainting is necessary.</p> <p>Removing damaged or deteriorated paint only to the next sound layer using the gentlest method possible (e.g. handscraping) prior to repainting.</p> <p>Applying compatible paint coating systems following proper surface preparation.</p> <p>Repainting with colors that are historically appropriate to the building and the district.</p> <p>Evaluating the overall condition of the masonry to determine whether more than protection and maintenance are required, that is, if repairs to the masonry fence will be necessary.</p> <p>Repairing masonry walls and other masonry features by repointing the mortar joints where there is evidence of deterioration such as disintegrating mortar, cracks in mortar joints, loose bricks, damp walls, or damaged plaster work.</p> <p>Removing deteriorated mortar by carefully hand-raking the joints to avoid damaging the masonry.</p>	<p>Sandblasting brick or stone surfaces using dry or wet grit or other abrasives. These methods of cleaning permanently erode the surface of the material and accelerate deterioration.</p> <p>Using a cleaning method that involves water or liquid chemical solutions when there is any possibility of freezing temperatures.</p> <p>Cleaning with chemical products that will damage masonry, such as using acid on limestone or marble, or leaving chemicals on masonry surfaces.</p> <p>Applying high pressure water cleaning methods that will damage historic masonry and the mortar.</p> <p>Removing paint that is firmly adhering to, and thus protecting masonry surfaces.</p> <p>Using methods of removing paint which are destructive to masonry, such as sandblasting, application of caustic solutions, or high pressure waterblasting.</p> <p>Failing to follow manufacturers' product and application instructions when repainting masonry.</p> <p>Using new paint colors that are inappropriate to the historic building and district.</p> <p>Failing to undertake adequate measures to assure the preservation of masonry features.</p> <p>Removing nondeteriorated mortar from sound joints, then repointing the entire building to achieve a uniform appearance.</p> <p>Using electric saws and hammers rather than hand tools to remove deteriorated mortar from joints prior to repointing.</p>

Masonry (continued) <u><i>Recommended</i></u>	<u><i>Not Recommended</i></u>
<p>Duplicating old mortar in strength, composition, color, and texture.</p>	<p>Repointing with mortar of high portland cement content (unless it is the content of the historic mortar). This can often create a bond that is stronger than the historic material and can cause damage as a result of the differing coefficient of expansion and the differing porosity of the material and the mortar.</p> <p>Repointing with a synthetic caulking compound.</p> <p>Using a “scrub” coating technique to repoint instead of traditional repointing methods.</p>
<p>Duplicating old mortar joints in width and in joint profile.</p> <p>Repairing stucco by removing the damaged material and patching with new stucco that duplicated the old in strength, composition, color, and texture.</p>	<p>Changing a width or joint profile when repointing.</p> <p>Removing sound stucco; or repairing with new stucco that is stronger than the historic material or does not convey the same visual appearance.</p>
<p>Using mud plaster as a surface coating over unfired, unstabilized adobe because the mud plaster will bond to the adobe.</p>	<p>Applying cement stucco to unfired, unstabilized adobe. Because the cement stucco will not bond properly, moisture can become entrapped between materials, resulting in accelerate deterioration of the adobe.</p>
<p>Repairing masonry features by patching, piecing-in, or consolidating the masonry using recognized preservation methods. Repair may also include the limited replacement in kind – or with compatible substitute material of those extensively deteriorated or missing parts of masonry features when there are surviving prototypes such as terra-cotta brackets or stone balusters.</p>	<p>Replacing an entire masonry feature such as a cornice or balustrade when repair of the masonry and limited replacement of deteriorated or missing parts are appropriate.</p> <p>Using a substitute material for the replacement part does not convey the visual appearance of the surviving parts of the masonry feature or that is physically or chemically incompatible.</p>
<p>Applying new or non-historic surface treatment such as water-repellent coatings to masonry only after repointing and only if masonry repairs have failed to arrest water penetration problem.</p>	<p>Applying waterproof, water-repellant, or non-historic coatings such as stucco to masonry as a substitute for repointing and masonry repairs. Coatings are frequently unnecessary, expensive, and may change the appearance of historic masonry as well as accelerated its deterioration.</p>

Masonry (continued)	
<u>Recommended</u>	<u>Not Recommended</u>
<p>Replacing in kind an entire masonry feature that is too deteriorated to repair – if the overall form and detailing are still evident – using the physical evidence to guide the new work. Examples can include large sections of a wall, a cornice, balustrade, column, or stairway. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.</p>	<p>Removing a masonry feature that is unrepairable and not replacing it; or replacing it with new feature that does not convey the same visual appearance.</p>
<p>Design for Missing Historic Features</p>	
<p>Designing and installing a new masonry feature such as steps or a door pediment when the historic feature is completely missing. It may be an accurate restoration using historical, pictorial, and physical documentation; or be a new design that is compatible with the size, scale, material, and color of the historic building.</p>	<p>Creating a false historical appearance because the replaced masonry feature is based on insufficient historical, pictorial, and physical documentation.</p> <p>Introducing a new masonry feature that is incompatible in size, scale, material, and color.</p>

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Wood: Clapboard, weatherboard, shingles, and other wooden siding and decorative element

Because it can be easily shaped by sawing, planing, carving, and gouging, wood is the most commonly used material for architectural features such as clapboards, cornices, brackets, entablatures, shutters, columns and balustrades. These wooden features – both functional and decorative – may be important in defining the historic character of the building and thus their retention, protection, and repair are of particular importance in rehabilitation projects.

<u>Recommended</u>	<u>Not Recommended</u>
<p>Identifying, retaining, and preserving wood features that are important in defining the overall historic character of the building such as siding, cornices, brackets, window architraves, and doorway pediments; and their paints, finishes, and colors.</p>	<p>Removing or radically changing wood features which are important in defining the overall character of the building so that, as a result, the character is diminished.</p> <p>Removing a major portion of the historic wood instead of repairing or replacing only the deteriorated wood, then reconstructing the facade with new material in order to achieve a uniform or “improved” appearance.</p>

Wood (continued)	
<u>Recommended</u>	<u>Not Recommended</u>
<p>Protecting and maintaining wood features by providing proper drainage so that water is not allowed to stand on flat, horizontal surfaces or accumulate in decorative features.</p> <p>Applying chemical preservatives to wood features such as beam ends or outriggers that are exposed to decay hazards and are traditionally unpainted.</p> <p>Retaining coatings such as paint that help protect the wood from moisture and ultraviolet light. Paint removal should be considered only where there is paint surface deterioration and as part of an overall maintenance program which involves repainting or applying other appropriate protective coatings.</p> <p>Inspecting painted wood surfaces to determine whether repainting is necessary or if cleaning is all that is required.</p> <p>Removing damaged or deteriorated paint to the next sound layer using the gentlest method possible (handscraping and handsanding), then repainting.</p> <p>Using with care electric hot-air guns on decorative wood features and electric heat plates on flat wood surfaces when paint is so deteriorated that total removal is necessary prior to repainting.</p> <p>Using chemical strippers primarily to supplement other methods such as handscraping, handsanding</p>	<p>Radically changing type of finish or its color or accent scheme so that the historic character of the exterior is diminished.</p> <p>Stripping historically painted surfaces to bare wood, then applying clear finishes or stains in order to create a “natural look.”</p> <p>Stripping paint or varnish to bare wood rather than repairing or reapplying a special finish, i.e., a grained finish to an exterior wood feature such as a front door.</p> <p>Failing to identify, evaluate, and treat the causes of wood deterioration, including faulty flashing, leaking gutters, cracks and holes in siding, deteriorated caulking in joints and seams, plant material growing too close to wood surfaces, or insect or fungus infestation.</p> <p>Using chemical preservatives such as creosote which can change the appearance of wood features unless they were used historically.</p> <p>Stripping paint or other coatings to reveal bare wood, thus exposing historically coated surfaces to the effects of accelerated weathering.</p> <p>Removing paint that is firmly adhering to, and thus, protecting wood surfaces.</p> <p>Using destructive paint removal methods such as a propane or butane torches, sandblasting or waterblasting. These methods can irreversibly damage historic woodwork.</p> <p>Using thermal devices improperly so that the historic woodwork is scorched.</p> <p>Failing to neutralize the wood thoroughly after using chemicals so that new paint does not adhere.</p>

<p>and the above-recommended thermal devices. Detachable wooden elements such as shutters, doors, and columns may – with the proper safeguards be chemically dip-stripped.</p> <p>Applying compatible paint coating systems following proper surface preparation.</p> <p>Repainting with colors that are appropriate to the historic building and district.</p> <p>Evaluating the overall condition of the wood to determine whether more than protection and maintenance are required, that is, if repairs to wood features will be necessary.</p> <p>Repairing wood features by patching, piecing-in, consolidating, or otherwise reinforcing the wood using recognized preservation methods. Repair may also include the limited replacement in kind or with compatible substitute material of those extensively deteriorated or missing parts of features where there are surviving prototypes such as brackets, moldings, or sections of siding.</p> <p>Replacing in kind an entire wood feature that is too deteriorated to repair if the overall form and detailing are still evident – using the physical evidence to guide the new work. Example of wood features include a cornice, entablature or balustrade. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.</p> <p>Design for Missing Historic Features</p> <p>Designing and installing a new wood feature such as cornice or a doorway when the historic feature is completely missing. It may be an accurate restoration using historical, pictorial, and physical documentation; or be a new design that is compatible with the size, scale, material, and color of the historic building.</p>	<p>Allowing detachable wood features to soak too long in a caustic solution so that the wood grain is raised and the surface roughened.</p> <p>Failing to follow manufacturers' product and application instructions when repainting exterior woodwork.</p> <p>Using new colors that are inappropriate to the historic building or district.</p> <p>Failing to undertake adequate measures to assure the preservation of wood features.</p> <p>Replacing an entire wood feature such as a cornice or wall when repair of the wood and limited replacement of deteriorated or missing parts are appropriate.</p> <p>Using substitute materials for the replacement part that does not convey the visual appearance of the surviving parts of the wood feature or that is physically or chemically incompatible.</p> <p>Removing an entire wood feature that is unrepairable and not replacing it; or replacing it with a new feature that does not convey the same visual appearance.</p> <p>Creating a false historical appearance because the replaced wood feature is based on insufficient historical, pictorial, and physical documentation.</p> <p>Introducing a new wood feature that is incompatible in size, scale, material, and color.</p>
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Architectural Metals: Cast iron, steel, pressed tin, copper, aluminum, and zinc.

Architectural metal features – such as cast-iron facades, porches, and steps; sheet metal cornices, roofs, roof cresting and storefronts; and cast or rolled metal doors, window sash, entablatures, and hardware – are often highly decorative and may be important in defining the overall historic character of the building. Their retention, protection, and repair should be a prime consideration in rehabilitation projects.

<u>Recommended</u>	<u>Not Recommended</u>
<p>Identifying, retaining, and preserving architectural metal features such as columns, capitals, window hoods, or stairways that are important in defining the overall historic character of the building; and their finishes and colors.</p> <p>Protecting and maintaining architectural metals by providing proper drainage so that water does not stand on flat, horizontal surfaces or accumulate in curved decorative features.</p> <p>Cleaning architectural metals, when necessary, to remove corrosion prior to repainting or applying other appropriate protective coatings.</p> <p>Identifying the particular type of metal prior to any cleaning procedure and then testing to assure that the gentlest cleaning method possible is selected or determining that cleaning is inappropriate for the particular metal.</p>	<p>Removing or radically changing architectural metal features which are important in defining the overall character of the building so that, as a result, the character is diminished.</p> <p>Removing a major portion of the historic architectural metal instead of repairing or replacing only the deteriorated metal, then reconstructing the facade with new material in order to achieve a uniform or “improved” appearance.</p> <p>Radically changing the type of finish or its historic color or accent scheme.</p> <p>Failing to identify, evaluate, and treat the causes of corrosion, such as moisture from leaking roofs or gutters.</p> <p>Placing incompatible metals together without providing a reliable separation material. Such incompatibility can result in galvanic corrosion of the noble metal, e.g. copper will corrode cast iron, steel, tin, and aluminum.</p> <p>Exposing metals which were intended to be protected from the environment.</p> <p>Applying paint or other coatings to metals such as copper, bronze, or stainless steel that were meant to be exposed.</p> <p>Using cleaning methods which alter or damage the historic color, texture, and finish of the metal.</p> <p>Removing the patina of historic metal. The patina may be a protective coating on some metals, such as bronze or copper, as well as a significant historic finish.</p>

<p>Architectural Metals (continued)</p> <p><u>Recommended</u></p>	<p><u>Not Recommended</u></p>
<p>Cleaning soft metals such as lead, tin, copper,terneplate, and zinc with appropriate chemical methods because their finishes can be easily abraded by blasting methods.</p>	<p>Cleaning soft metals such as lead, tin, copper,terneplate, and zinc with grit blasting which will abrade the surface of the metal.</p>
<p>Using the gentlest cleaning methods for cast iron, wrought iron, and steel – hard metals – in order to remove paint build up and corrosion. If handscraping and wire brushing have proven ineffective, low pressure dry grit blasting may be used as long as it does not abrade or damage the surface.</p>	<p>Failing to employ gentler methods prior to abrasively cleaning cast iron, wrought iron or steel; or using high pressure grit blasting.</p>
<p>Applying appropriate paint or other coating systems after cleaning in order to decrease the corrosion rate of metals or alloys.</p>	<p>Failing to re-apply protective coating systems to metals or alloys that require them after cleaning so that accelerated corrosion occurs.</p>
<p>Repainting with colors that are appropriate to the historic building or district.</p>	<p>Using new colors that are inappropriate to the historic building or district.</p>
<p>Applying an appropriate protective coating such as lacquer to an architectural metal such as a bronze door which is subject to heavy pedestrian use.</p>	<p>Failing to assess pedestrian use or new access patterns so that architectural metal features are subject to damage by use or inappropriate maintenance such as salting adjacent sidewalks.</p>
<p>Evaluating the overall condition of the architectural metals to determine whether more than protection and maintenance are required, that is, if repairs to the features will be necessary.</p>	<p>Failing to undertake adequate measures to assure the preservation of architectural metal features.</p>
<p>Repairing architectural metal features by patching, splicing, or otherwise reinforcing the metal using recognized preservation methods. Repair may also include the limited replacement in kind – or with compatible substitute material – of those extensively deteriorated or missing parts of features where there are surviving prototypes such as porch balusters, column capitals or bases, or porch cresting.</p>	<p>Replacing an entire architectural metal feature such as a column or a balustrade when repair of the metal and limited replacement of deteriorated or missing parts are appropriate.</p> <p>Using a substitute material for the replacement part that does not convey the visual appearance of the surviving parts of the architectural metal feature or that is physically or chemically incompatible.</p>

Architectural Metals (continued)	
<u>Recommended</u>	<u>Not Recommended</u>
<p>Replacing in kind an entire architectural metal feature that is too deteriorated to repair – if the overall form and detailing are still evident – using the physical evidence to guide the new work. Examples could include cast iron porch steps or steel sash windows. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.</p>	<p>Removing an architectural metal feature that is unrepairable and not replacing it; or replacing it with a new architectural metal feature that does not convey the same visual appearance.</p>
Design for Missing Historic Features	
<p>Designing and installing a new architectural metal feature such a sheet metal cornice or a cast iron capital when the historic feature is completely missing. It may be an accurate restoration using historical, pictorial, and physical documentation; or be a new design that is compatible with the size, scale, material, and color of the historic building</p>	<p>Creating a false historical appearance because the replaced architectural metal feature is based on insufficient historical, pictorial, and physical documentation.</p> <p>Introducing a new architectural metal feature that is incompatible in size, scale, material, and color.</p>

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Roofs

The roof – with its shape; such as cresting, dormers, cupolas, and chimneys; and the size, color, and patterning of the roofing material- can be extremely important in defining the building's overall historic character. In addition to the design role it plays, a weather tight roof is essential to the preservation of the entire structure; thus, protecting and repairing the roof as a “cover” is a critical aspect of every rehabilitation project.

<u>Recommended</u>	<u>Not Recommended</u>
<p>Identifying, retaining, and preserving roofs- and their functional and decorative features- that are important in defining the overall historic character of the building. This includes the roofs' shape, such as hipped, gambrel, and mansard; decorative features such as cupolas, cresting, chimneys, and weathervanes; and roofing material such as slate, wood, clay tile, and metal, as well as its color, and patterning.</p>	<p>Radically changing, damaging, or destroying roofs which are important in defining the overall historic character of the building so that, as a result, the character is diminished.</p> <p>Removing a major portion of the roof or roofing material that is repairable, then reconstructing it with new material in order to create a uniform, or “improved” appearance.</p>

Roof (continued)	
<u>Recommended</u>	<u>Not Recommended</u>
<p>Protecting and maintaining a roof by cleaning the gutters and downspouts and replacing deteriorated flashing. Roof sheathing should also be checked for proper venting to prevent moisture condensation; and to insure that materials are free from insect infestation.</p>	<p>Changing the configuration of a roof by adding new features such as dormer windows, vents, or skylights so that the historic character is diminished.</p> <p>Stripping the roof of sound historic material such as slate, clay tile, wood, and architectural metal.</p> <p>Applying paint or other coatings to roofing material which has been historically uncoated.</p> <p>Failing to clean and maintain gutters and downspouts properly so that water and debris collect and cause damage to roof fasteners, sheathing, and underlying structure.</p>
<p>Providing adequate anchorage for roofing material to guard against wind damage and moisture penetration.</p>	<p>Allowing roof fasteners, such as nails and clips to corrode so that roofing material is subject to accelerated deterioration.</p>
<p>Protecting a leaking roof with plywood and building paper until it can be properly repaired.</p>	<p>Permitting a leaking roof to remain unprotected so that accelerated deterioration of historic building materials- masonry, wood, plaster, paint and structural members – occurs.</p>
<p>Repairing a roof by reinforcing the historic materials which comprise roof features. Repairs will also generally include the limited replacement in kind – or with compatible substitute material – of those extensively deteriorated or missing parts of features when there are surviving prototypes such as cupola louvers, dentils, dormer roofing; or slates, tiles, or wood shingles on a main roof.</p>	<p>Replacing an entire roof feature such as a cupola or dormer when repair of the historic materials and limited replacement of deteriorated or missing parts are appropriate.</p> <p>Using a substitute material for the replacement part that does not convey the visual appearance of the surviving parts of the roof or that is physically or chemically incompatible.</p>
<p>Replacing in kind an entire feature of the roof that is too deteriorated to repair- if the overall form and detailing are still evident – using the physical evidence to guide the new work. Examples can include a large section of roofing, or a dormer or chimney. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.</p>	<p>Removing a feature of the roof that is unrepairable, such as a chimney or dormer, and not replacing it; or replacing it with a new feature that does not convey the same visual appearance.</p>

Roof (continued)	
<u><i>Recommended</i></u>	<u><i>Not Recommended</i></u>
<p>Design for Missing Historic Features</p> <p>Designing and constructing a new feature when the historic feature is completely missing, such as a chimney or cupola. It may be an accurate restoration using historical, pictorial, and physical documentation or be a new design that is compatible with the size, scale, material and color of the historical building.</p>	<p>Creating a false historical appearance because the replaced feature is based on insufficient historical, pictorial, and physical documentation.</p> <p>Introducing a new roof feature that is incompatible in size, scale, material, and color.</p>
<p>Alterations/Additions for the New Use</p> <p>Installing mechanical and service equipment on the roof such as air conditioning, transformers, or solar collectors when required for the new use so that they are inconspicuous from the public right-of-way and do not damage or obscure character-defining features.</p> <p>Designing additions to roofs such as residential, office, or storage spaces; elevator housing; decks and terraces; or dormers or skylights when required by the new use so that they are inconspicuous from the public right-of-way and do not damage or obscure character-defining features.</p>	<p>Installing mechanical or service equipment so that it damages or obscures character-defining features; or is conspicuous from the public right of way.</p> <p>Radically changing a character-defining roof shape or damaging or destroying character-defining roofing material as a result of incompatible design or improper installation techniques.</p>

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Windows

A highly decorative window with an unusual shape, or glazing pattern, or color is most likely identified immediately as a character-defining feature of the building. It is far more difficult, however, to assess the importance of repeated windows on a facade, particularly if they are individually simple in design and material, such as the large, multi-paned sash of many industrial buildings. Because rehabilitation projects frequently include proposals to replace window sash or even entire windows to improve thermal efficiency or to create a new appearance, it is essential that their contribution to the overall historic character of the building be assessed together with their physical condition before specific repair or replacement work is taken.

<u>Recommended</u>	<u>Not Recommended</u>
<p>Identifying, retaining, and preserving windows- and their functional and decorative features – that are important in defining the overall historic character of the building. Such features can include frames, sash, muntins, glazing, sills, heads, hoodmolds, panelled or decorated jambs and moldings, and interior and exterior shutters and blinds.</p> <p>Protecting and maintaining the wood and architectural metal which comprise the window frame, sash, muntins, and surrounds through appropriate surface treatments such as cleaning, rust removal, limited paint removal, and re-application of protective coating systems.</p> <p>Making windows weathertight by recaulking and replacing or installing weatherstripping. These actions also improve thermal efficiency.</p> <p>Evaluating the overall condition of materials to determine whether more than protection and maintenance are required, i.e. if repairs to windows and window features will be required.</p>	<p>Removing or radically changing windows which are important in defining the overall historic character of the building so that, as a result, the character is diminished.</p> <p>Changing the number, location, size or glazing pattern of windows, through cutting new openings, blocking-in windows, and installing replacement sash which does not fit the historic window opening.</p> <p>Changing the historic appearance of windows through the use of inappropriate designs, materials, finishes, or colors which radically change the sash, depth of reveal, and muntin configuration; the reflectivity and color of the glazing; or the appearance of the frame.</p> <p>Obscuring historic window trim with metal or other material.</p> <p>Stripping windows of historic material such as wood, iron, cast iron, and bronze.</p> <p>Failing to provide adequate protection of materials on a cyclical basis so that deterioration of the window results.</p> <p>Retrofitting or replacing windows rather than maintaining the sash, frame, and glazing.</p> <p>Failing to undertake adequate measures to assure the preservation of historic windows.</p>

Windows (continued)	
<u>Recommended</u>	<u>Not Recommended</u>
<p>Repairing window frames and sash by patching, splicing, consolidating or otherwise reinforcing. Such repair may also include replacement in kind of those parts that are either extensively deteriorated or missing when there are surviving prototypes such as architraves, hoodmolds, sash, sills and interior or exterior shutters and blinds.</p>	<p>Replacing an entire window when repair of materials and limited replacement of deteriorated or missing parts are appropriate.</p>
<p>Replacing in kind an entire window that is too deteriorated to repair – if the overall form and detailing are still evident – using the physical evidence to guide the new work. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.</p>	<p>Failing to reuse serviceable window hardware such as brass lifts and sash locks.</p>
	<p>Using a substitute material for the replacement part that does not convey the visual appearance of the surviving parts of the window or that is physically or chemically incompatible.</p>
<p>Design for Missing Historic Features</p>	<p>Removing a character-defining window that is unrepairable and blocking it in; or replacing it with a new window that does not convey the same visual appearance.</p>
<p>Designing and installing new windows when the historic windows (frame, sash and glazing) are completely missing. The replacement windows may be an accurate restoration using historical, pictorial, and physical documentation; or be a new design that is compatible with the new window openings and the historic character of the building.</p>	<p>Creating a false historical appearance because the replaced window is based on insufficient historical, pictorial, and physical documentation.</p>
	<p>Introducing a new design that is incompatible with the historic character of the building.</p>
<p>Alterations/Additions for the New Use</p>	
<p>Designing and installing additional windows on rear and on other-non character defining elevations if required by the new use. New windows openings may also be cut into exposed party walls. Such design should be compatible with the overall design of the building, but not duplicate the fenestration pattern and detailing of a character-defining elevation.</p>	<p>Installing new windows, including frames, sash, and muntin configuration that are incompatible with the building's historic appearance or obscure, damage, or destroy character-defining features.</p>

Windows (continued)	
<u>Recommended</u>	<u>Not Recommended</u>
<p>Providing a setback in the design of dropped ceilings when they are required for the new use to allow for the full height of the window openings.</p>	<p>Inserting new floors or furred-down ceilings which cut across the glazed areas of windows so that the exterior form and appearance of the windows are changed.</p>

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Entrances and Porches

Entrances and porches are quite often the focus of historic buildings, particularly when they occur on primary elevations. Together with their functional and decorative features such as doors, steps, balustrades, pilasters, and entablatures, they can be extremely important in defining the overall historic character of a building. Their retention, protection, and repair should always be carefully considered when planning rehabilitation work.

<u>Recommended</u>	<u>Not Recommended</u>
<p>Identifying, retaining, and preserving entrances – and their functional and decorative features – that are important in defining the overall historic character of the building such as doors, fanlights, sidelights, pilasters, entablatures, columns, balustrades, and stairs.</p> <p>Protecting and maintaining the masonry, wood, and architectural metal that comprise entrances and porches through appropriate surface treatments such as cleaning, rust removal, limited paint removal, and re-application of protective coating systems.</p>	<p>Removing or radically changing entrances or porches which are important in defining the overall historic character of the building so that, as a result, the character is diminished.</p> <p>Stripping entrances and porches of historic material such as wood, iron, cast iron, terra cotta, tile and brick. Removing an entrance or porch because the building has been reoriented to accommodate a new use.</p> <p>Cutting new entrances on a primary elevation.</p> <p>Altering utilitarian or service entrances so they appear to be formal entrances by adding panelled doors, fanlights, and sidelights.</p> <p>Failing to provide adequate protection to materials on a cyclical basis so that deterioration of entrances and porches results.</p>

Entrances and Porches (continued)	
<u>Recommended</u>	<u>Not Recommended</u>
<p>Evaluating the overall condition of materials to determine whether more than protection and maintenance are required, that is, if repairs to entrance and porch features will be necessary.</p>	<p>Failing to undertake adequate measures to assure the preservation of historic entrances and porches.</p>
<p>Repairing entrances and porches by reinforcing the historic materials. Repair will also generally include the limited replacement in kind – or with compatible substitute material – of those extensively deteriorated or missing parts of repeated features where there are surviving prototypes such as balustrades, cornices, entablatures, columns, sidelights, and stairs.</p>	<p>Replacing an entire entrance or porch when the repair of materials and limited replacement of parts are appropriate.</p> <p>Using a substitute material for the replacement parts that does not convey the visual appearance of the surviving parts of the entrance and porch or that is physically or chemically incompatible.</p>
<p>Replacing in kind an entire entrance or porch that is too deteriorated to repair – if the overall form and detailing are still evident – using the physical evidence to guide the new work. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.</p>	<p>Removing an entrance or porch that is unrepairable and not replacing it; or replacing it with a new entrance or porch that does not convey the same visual appearance.</p>
<p>Design for Missing Historic Features</p>	
<p>Designing and constructing a new entrance or porch if the historic entrance or porch is completely missing. It may be a restoration based on historical, pictorial, and physical documentation; or be a new design that is compatible with the historic character of the building.</p>	<p>Creating a false historical appearance because the replaced entrance or porch is based on insufficient historical, pictorial, and physical documentation.</p>
<p>Alterations/Additions for the New Use</p>	
<p>Designing enclosures for historic porches when required by the new use in a manner that preserves the historic character of the building. This can include using large sheets of glass and recessing the enclosure wall behind existing scrollwork, posts, and balustrades.</p>	<p>Introducing a new design that is incompatible with the historic character of the building.</p> <p>Enclosing porches in a manner that results in a diminution or loss of historic character such as using solid materials such as wood, stucco, or masonry.</p>

<p>Entrances and Porches (continued)</p> <p><u>Recommended</u></p>	<p><u>Not Recommended</u></p>
<p>Designing and installing additional entrances or porches when required for the new use in a manner that preserves the historic character of the building, i.e., limiting such alteration to non-character-defining elevations.</p>	<p>Installing secondary service entrances and porches that are incompatible in size and scale with the historic building or obscure, damage, or destroy character-defining features.</p>

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Storefronts

Storefronts are quite often the focus of historic commercial buildings and can thus be extremely important in defining the overall historic character. Because storefronts also play a crucial role in a store's advertising and merchandising strategy to draw customers and increase business, they are often altered to meet the needs of a new business. Particular care is required in planning and accomplishing work on storefronts so that the building's historic character is preserved in the process of rehabilitation.

<p><u>Recommended</u></p>	<p><u>Not Recommended</u></p>
<p>Identifying, retaining, and preserving storefronts – and their functional and decorative features – that are important in defining the overall historic character of the building such as display windows, signs, doors, transoms, kick plates, corner posts, and entablatures.</p> <p>Protecting and maintaining masonry, wood, and architectural metals which comprise storefronts through appropriate treatments such as cleaning, rust removal, limited paint removal, and reapplication of protective coating systems.</p>	<p>Removing or radically changing storefronts – and their features – which are important in defining the overall historic character of the building so that, as a result, the character is diminished.</p> <p>Changing the storefront so that it appears residential rather than commercial in character.</p> <p>Removing historic material from the storefront to create a recessed arcade.</p> <p>Introducing coach lanterns, mansard overhangs, wood shakes, nonoperable shutters, and small-paned windows if they cannot be documented historically.</p> <p>Changing the location of a storefront's main entrance.</p> <p>Failing to provide adequate protection to materials on a cyclical basis so that deterioration of storefront features result.</p>

<p>Storefronts (continued)</p> <p><u>Recommended</u></p>	<p><u>Not Recommended</u></p>
<p>Protecting storefronts against arson and vandalism before work begins by boarding up windows and installing alarm systems that are keyed into local protection agencies.</p> <p>Evaluating the overall condition of storefront materials to determine whether more than protection and maintenance are required, that is, if repairs to features will be necessary.</p> <p>Repairing storefronts by reinforcing the historic materials. Repairs will also generally include the limited replacement in kind – of those extensively deteriorated or missing parts of storefronts where there are surviving prototypes such as transoms, kick plates, pilasters, or signs.</p> <p>Replacing in kind an entire storefront that is too deteriorated to repair – if the overall form and detailing are still evident – using the physical evidence to guide the new work. If using the same material is not technically or economically feasible, then compatible substitute materials may be considered.</p>	<p>Permitting entry into the building through unsecured or broken windows and doors so that interior features and finishes are damaged through exposure to weather or through vandalism.</p> <p>Stripping storefronts of historic material such as wood, cast iron, terra cotta, carrara glass, and brick.</p> <p>Failing to undertake adequate measures to assure the preservation of the historic storefront.</p> <p>Replacing an entire storefront when repair of materials and limited replacement of its parts are appropriate.</p> <p>Using substitute material for the replacement parts that does not convey it with a new storefront or that is physically or chemically incompatible.</p> <p>Removing a storefront that is unrepairable and not replacing it; or replacing it with a new storefront that does not convey the same visual appearance.</p>
<p>Design for Missing Historic Features</p> <p>Designing and constructing a new storefront when the historic storefront is completely missing. It may be a restoration based on historical, pictorial, and physical documentation; or be a new design that is compatible with the size, scale, material, and color of the historic building. Such new design should generally be flush with the facade; and the treatment of secondary design elements, such as awnings or signs, kept as simple as possible. For example, new signs should fit flush with the existing features of the facade, such as the fascia board or cornice.</p>	<p>Creating a false historical appearance because the replaced storefront is based on insufficient historical, pictorial, and physical documentation.</p> <p>Introducing a new design that is incompatible in size, scale, material, and color.</p> <p>Using new illuminated signs; inappropriately scaled signs and logos; signs that project over the sidewalk unless they were a characteristic feature of the historic building; or other types of signs that obscure, damage, or destroy remaining character-defining features of the historic building.</p>

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BUILDING INTERIOR

Structural System

If features of the structural system are exposed such as load bearing brick walls, cast iron columns, roof trusses, post and beams, vigas, or stone foundation walls, they may be important in defining the building's overall historic character. Unexposed-defining or an entire structural system may nonetheless be significant in the history of building technology; therefore, the structural system should always be examined and evaluated early in the project planning stage to determine both its physical condition and its importance to the building's historic character or historical significance. See also Health and Safety Code Requirements.

<u>Recommended</u>	<u>Not Recommended</u>
<p>Identifying, retaining, and preserving structural systems- and individual features of systems that are important in defining the overall historic character of the building, such as post and beam systems, trusses, summer beams, vigas, cast iron columns, above grade stone foundation walls, or loadbearing brick or stone walls.</p> <p>Protecting and maintaining the structural system by cleaning the roof gutters and downspouts; replacing roof flashing; keeping masonry, wood, and architectural metals in a sound condition, and assuring that structural members are free from insect infestation.</p> <p>Examining and evaluating the physical condition of the structural system and its individual features using non-destructive techniques such as x-ray photography.</p>	<p>Removing, covering, or radically changing features of structural systems which are important in defining the overall historic character of the building so that, as a result, the character is diminished.</p> <p>Putting a new use into the building which could overload the existing structural system, or installing equipment or mechanical systems which could damage the structure.</p> <p>Demolishing a loadbearing masonry wall that could be augmented and retained and replacing it with a new wall (i.e. brick or stone), using the historic masonry only as an exterior veneer.</p> <p>Leaving known structural problems untreated such as deflection of beams, cracking and bowing of walls, or racking of structural members.</p> <p>Utilizing treatments or products that accelerate the deterioration of structural material such as introducing urea-formaldehyde foam insulation into frame walls.</p> <p>Failing to provide proper building maintenance on a cyclical basis so that deterioration of the structural system results.</p> <p>Utilizing destructive probing techniques that will damage or destroy structural material.</p>

Structural System (continued)	
<u>Recommended</u>	<u>Not Recommended</u>
<p>Repairing the structural systems by augmenting or upgrading individual parts or features. For example, weakened structural members such as floor framing can be spliced, braced, or otherwise supplemented and reinforced.</p>	<p>Upgrading the building structurally in a manner that diminishes the historic character of the exterior, such as installing strapping channels or removing a decorative cornice; or damages interior features or spaces.</p>
<p>Replacing in kind-or with substitute material-those portions or features of the structural system that are either extensively deteriorated or are missing when there are surviving prototypes such as cast iron columns, roof rafters or trusses, or sections of loadbearing walls. Substitute material should convey the same form, design, and overall visual appearance as the historic features; and, at a minimum, be equal to its loadbearing capabilities.</p>	<p>Replacing a structural member or other feature of the structural system when it could be augmented and retained.</p> <p>Installing a replacement feature that does not convey the same visual appearance, e.g., replacing an exposed wood summer beam with a steel beam.</p> <p>Using substitute material that does not equal the loadbearing capabilities of the historic material and design or is otherwise physically or chemically incompatible.</p>
Alterations/Additions for the New Use	
<p>Limiting any new excavations adjacent to historic foundations to avoid undermining the structural stability of the building or adjacent historic buildings.</p>	<p>Carrying out excavations or regrading adjacent to or within a historic building which could cause the historic foundation to settle, shift, or fail; or could have a similar effect on adjacent historic buildings.</p>
<p>Correcting structural deficiencies in preparation for the new use in a manner that preserves the structural system and individual character-defining features.</p>	<p>Radically changing interior spaces or damaging or destroying features or finishes that are character defining while trying to correct structural deficiencies in preparation for the new use.</p>
<p>Designing and installing new mechanical or electrical systems when required for the new use which minimize the number of cutouts or holes in structural members.</p>	<p>Installing new mechanical and electrical systems or equipment in a manner which results in numerous cuts, splices, or alterations to the structural members.</p>
<p>Adding a new floor when required for the new use if such an alteration does not damage or destroy the structural system or obscure, damage, or destroy character-defining spaces, features, or finishes.</p>	<p>Inserting a new floor when such a radical change damages a structural system or obscures or destroys interior spaces, features, or finishes.</p>

Structural System (continued)	
<u>Recommended</u>	<u>Not Recommended</u>
<p>Creating an atrium or a light well to provide natural light when required for the new use in a manner that assures the preservation of the structural system as well as character-defining interior spaces, features, and finishes.</p>	<p>Inserting new floors or furred-down ceilings which cut across the glazed areas of windows so that the exterior form and appearance of the windows are radically changed.</p> <p>Damaging the structural system or individual features; or radically changing, damaging, or destroying character-defining interior spaces, features, or finishes in order to create an atrium or a light well.</p>

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Interior: Spaces, Features, and Finishes

An interior floor plan, the arrangement of spaces, and built in features and applied finishes may be individually or collectively important in defining the historic character of the building. Thus, their identification, retention, protection, and repair should be given prime consideration in every rehabilitation project and caution exercised in pursuing any plan that would radically change character-defining spaces or obscure, damage or destroy interior features or finishes.

<u>Recommended</u>	<u>Not Recommended</u>
<p>Interior Spaces</p> <p>Identifying, retaining, and preserving a floor plan or interior spaces that are important in defining the overall historic character of the building. This includes the size, configuration, proportion, and relationship of rooms and corridors; the relationship of features to spaces; and the spaces themselves such as lobbies, reception halls, entrance halls, double parlors, theaters, auditoriums, and important industrial or commercial use spaces.</p>	<p>Radically changing a floor plan or interior spaces-including individual rooms-which are important in defining the overall historic character of the building so that, as a result, the character is diminished.</p> <p>Altering the floor plan by demolishing principal walls and partitions to create a new appearance.</p> <p>Altering or destroying interior spaces by inserting floors, cutting through floors, lowering ceilings, or adding or removing walls.</p> <p>Relocating an interior feature such as a staircase so that the historic relationship between features and space is altered.</p>

<p>Interior Features and Finishes (continued)</p> <p><u>Recommended</u></p>	<p><u>Not Recommended</u></p>
<p>Interior Features and Finishes</p> <p>Identifying, retaining, and preserving interior features and finishes that are important in defining the overall historic character of the building, including columns, cornices, baseboards, fireplaces and mantles, paneling, light fixtures, hardware, and flooring; and wallpaper, plaster, paint, and finishes such as stenciling, marbling, and graining; and other decorative materials that accent interior features and provide color, texture, and patterning to walls, floors, and ceilings.</p> <p>Protecting and maintaining masonry, wood, and architectural metals which comprise interior features through appropriate surface treatments such as cleaning, rust removal, limited paint removal, and reapplication of protective coating systems.</p> <p>Protecting interior features and finishes against arson and vandalism before project work begins, erecting protective fencing, boarding-up windows, and installing fire alarm systems that are keyed to local protection agencies.</p>	<p>Removing or radically changing features and finishes which are important in defining the overall historic character of the building so that, as a result, the character is diminished.</p> <p>Installing new decorative material that obscures or damages character-defining interior features or finishes.</p> <p>Removing paint, plaster, or other finishes from historically finished surfaces to create a new appearance (e.g. removing plaster to expose masonry surfaces such as brick walls or a chimney piece).</p> <p>Applying paint, plaster, or other finishes to surfaces that have been historically unfinished to create a new appearance.</p> <p>Stripping historically painted wood surfaces to bare wood, then applying clear finishes or stains to create a “natural look.”</p> <p>Stripping paint to bare wood rather than repairing or reapplying grained or marbled finishes to features such as doors and paneling.</p> <p>Radically changing the type of finish or its color, such as painting a previously varnished wood feature.</p> <p>Failing to provide adequate protection to materials on a cyclical basis so that deterioration of interior features results.</p> <p>Permitting entry into historic buildings through unsecured or broken windows and doors so that interior features and finishes are damaged by exposure to weather or through vandalism.</p>

Interior Features and Finishes (continued)	
<u><i>Recommended</i></u>	<u><i>Not Recommended</i></u>
<p>Protecting interior features such as a staircase, mantel, or decorative finishes and wall coverings against damage during project work by covering them with heavy canvas or plastic sheets.</p>	<p>Stripping interiors of features such as woodwork, doors, windows, light fixtures, copper piping, radiators; or of decorative materials.</p>
<p>Installing protective coverings in areas of heavy pedestrian traffic to protect historic features such as wall coverings, parquet flooring and panelling.</p>	<p>Failing to provide proper protection of interior features and finishes during work so that they are gouged, scratched, dented, or otherwise damaged.</p>
<p>Removing damaged or deteriorated paints and finishes to the next sound layer using the gentlest method possible, then repainting or refinishing using compatible paint or other coating systems.</p>	<p>Failing to take new use patterns into consideration so that interior features and finishes are damaged.</p>
<p>Repainting with colors that are appropriate to the historic building.</p>	<p>Using destructive methods such as propane or butane torches or sandblasting to remove paint or other coatings. These methods can irreversibly damage the historic materials that comprise interior features.</p>
<p>Limiting abrasive cleaning methods to certain industrial or warehouse buildings where the interior masonry or plaster features do not have distinguishing design, detail, tooling, or finishes; and where wood features are not finished, molded, beaded, or worked by hand. Abrasive cleaning should only be considered after other, gentler methods have been proven ineffective.</p>	<p>Using new paint colors that are inappropriate to the historic building.</p>
<p>Evaluating the overall condition of materials to determine whether more than protection and maintenance are required, that is, if repairs to interior features and finishes will be necessary.</p>	<p>Changing the texture and patina of character-defining features through sandblasting or using other abrasive methods to remove paint, discoloration or plaster. This includes both exposed wood (including structural members) and masonry.</p>
<p>Repairing interior features and finishes by reinforcing the historic materials. Repair will also generally include the limited replacement in kind – or with compatible substitute material – of those extensively deteriorated or missing parts of repeated features when there are surviving prototypes such as stairs, balustrades, wood panelling, columns; or decorative wall coverings or ornamental tin or plaster ceilings.</p>	<p>Failing to undertake adequate measures to assure the preservation of interior features and finishes.</p>
	<p>Replacing an entire interior feature such as a staircase, panelled wall, parquet floor, or cornice; or finish such as a decorative wall covering or ceiling when repair of materials and limited replacement of such parts are appropriate.</p>
	<p>Using a substitute material for the replacement part that does not convey the visual appearance of the surviving parts or portions of the interior feature or finish or that is physically or chemically incompatible.</p>

Interior Features and Finishes (continued)	
<u><i>Recommended</i></u>	<u><i>Not Recommended</i></u>
<p>Replacing in kind an entire interior feature or finish that is too deteriorated to repair – if the overall form and detailing are still evident – using the physical evidence to guide the new work. Examples could include wainscoting, a tin ceiling, or interior stairs. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.</p>	<p>Removing a character defining feature or finish that is unrepairable and not replacing it; or replacing it with a new feature or finish that does not convey the same visual appearance.</p>
<p>Design for Missing Historic Features</p>	
<p>Designing and installing a new interior feature or finish if the historic feature or finish is completely missing. This could include missing partitions, stairs, elevators, lighting fixtures, and wall coverings; or even entire rooms if all historic spaces, features, and finishes are missing or have been destroyed by inappropriate “renovations.” The design may be a restoration based on historical, pictorial, and physical documentation; or be a new design that is compatible with the historic character of the building, district, or neighborhood.</p>	<p>Creating a false historical appearance because the replaced feature is based on insufficient physical, historical, and pictorial documentation or on information derived from another building.</p>
<p>Alterations/ Additions for the New Use</p>	
<p>Accommodating service functions such as bathrooms, mechanical equipment, and office machines required by the building’s new use in secondary spaces such as first floor service areas or on upper floors.</p>	<p>Dividing rooms, lowering ceilings, and damaging or obscuring character-defining features such as fireplaces, niches, stairways or alcoves, so that a new use can be accommodated in the building.</p>
<p>Reusing decorative materials or features that have had to be removed during the rehabilitation work including wall and baseboard trim, door moulding, panelled doors, and simple wainscoting; and relocating such material or features in areas appropriate to their historic placement.</p>	<p>Discarding historic material when it can be reused within the rehabilitation project or relocating it in historically inappropriate areas.</p>
<p>Installing permanent partitions in secondary spaces; removable partitions that do not destroy the sense of space should be installed when the new use requires the subdivision of character defining interior spaces.</p>	<p>Installing permanent partitions that damage or obscure character-defining spaces, features, or finishes.</p>

<p>Interior Features and Finishes (continued)</p> <p><u><i>Recommended</i></u></p>	<p><u><i>Not Recommended</i></u></p>
<p>Enclosing an interior stairway where required by code so that its character is retained. In many cases, glazed fire-rated walls may be used.</p>	<p>Enclosing an interior stairway with fire-rated construction so that the stairwell space or any character-defining features are destroyed.</p>
<p>Placing new code-required stairways or elevators in secondary and service areas of the historic building.</p>	<p>Radically changing, damaging, or destroying character-defining spaces, features, or finishes when adding new code-required stairways and elevators.</p>
<p>Creating an atrium or a light well to provide natural light when required for the new use in a manner that preserves character-defining interior spaces, features, and finishes as well as the structural systems.</p>	<p>Destroying character-defining interior spaces, features, or finishes; or damaging the structural system in order to create an atrium or light well.</p>
<p>Adding a new floor if required for the new use in a manner that preserves character-defining structural features, and interior spaces, features, and finishes.</p>	<p>Inserting a new floor within a building that alters or destroys the fenestration; radically changes a character-defining interior space; or obscures, damages, or destroys decorative detailing.</p>

The aforementioned work is highlighted in bold to indicate that it represents the particularly complex technical or design aspects of rehabilitation projects and should only be considered after the preservation concerns listed above have been addressed.

Mechanical Systems; Heating, Air Conditioning, Electrical, and Plumbing

The visible feature of historic heating, lighting, air conditioning and plumbing systems may sometimes help define the overall historic character of the building and should thus be retained and repaired, whenever possible. The systems themselves (the compressors, boilers, generators, and their ductwork, wiring and pipes) will generally either need to be upgraded, augmented, or entirely replaced in order to accommodate the new use and to meet code requirements. Less frequently, individual portions of a system or an entire system are significant in the history of building technology; therefore, the identification of character-defining features or historically significant systems should take place together with an evaluation of their physical condition early in project planning.

<p><u><i>Recommended</i></u></p>	<p><u><i>Not Recommended</i></u></p>
<p>Identifying, retaining, and preserving visible features of early mechanical systems that are important in defining the overall historic character of the building, such as radiators, vents, fans, grilles, plumbing fixtures, switchplates, and lights.</p>	<p>Removing or radically changing features of mechanical systems that are important in defining the overall historic character of the building so that, as a result, the character is diminished.</p>

Mechanical Systems (continued)	
<u>Recommended</u>	<u>Not Recommended</u>
<p>Protecting and maintaining mechanical, plumbing, and electrical systems and their features through cyclical cleaning and other appropriate measures.</p>	<p>Failing to provide adequate protection of materials on a cyclical basis so that deterioration of mechanical systems and their visible features results.</p>
<p>Preventing accelerated deterioration of mechanical systems by providing adequate ventilation of attics, crawlspaces, and cellars so that moisture problems are avoided.</p>	<p>Enclosing mechanical systems in areas that are not adequately ventilated so that deterioration of the systems results.</p>
<p>Repairing mechanical systems by augmenting or upgrading system parts, such as installing new pipes and ducts; rewiring; or adding new compressors or boilers.</p>	<p>Replacing a mechanical system or its functional parts when it could be upgraded and retained.</p>
<p>Replacing in kind – or with compatible substitute material – those visible features of mechanical systems that are either extensively deteriorated or are missing when there are surviving prototypes such as ceiling fans, switchplates, radiators, grilles, or plumbing fixtures.</p>	<p>Installing a replacement feature that does not convey the same visual appearance.</p>
<p>Alteration/Additions for the New Use</p>	
<p>Installing a completely new mechanical system if required for the new use so that it causes the least alteration possible to the building's floor plan, the exterior elevations, and the least damage to historic building material.</p>	<p>Installing a new mechanical system so that character-defining structural or interior features are radically changed, damaged, or destroyed.</p>
<p>Installing the vertical runs of ducts, pipes, and cables in closets, service rooms, and wall cavities.</p>	<p>Installing vertical runs of ducts, pipes, and cables in places where they will obscure character – defining features.</p>
	<p>Concealing mechanical equipment in walls or ceilings in a manner that requires the removal of historic building material.</p> <p>Installing “dropped” acoustical ceilings to hide mechanical equipment when this destroys the proportions of character –defining interior spaces.</p>
<p>Installing air conditioning units if required by the new use in such a manner that the historic materials and features are not damaged or obscured.</p>	<p>Cutting through features such as masonry wall in order to install air conditioning units.</p>

Mechanical Systems (continued)	
<u>Recommended</u>	<u>Not Recommended</u>
<p>Installing heating/air conditioning units in the window frames in such a manner that the sash and frames are protected. Window installations should be considered only when all other heating/cooling systems would result in significant damage to historic materials.</p>	<p>Radically changing the appearance of the historic building or damaging or destroying windows by installing heating/air conditioning units in historic window frames.</p>

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BUILDING SITE

The relationship between a historic building or buildings features within a property's boundaries – or building site – helps to define the historic character and should be considered an integral part of overall planning for rehabilitation project work.

<u>Recommended</u>	<u>Not Recommended</u>
<p>Identifying, retaining, and preserving buildings and their features as well as features of the site that are important in defining its overall historic character. Site features can include driveways, walkways, lighting, fencing, signs, benches, fountains, wells, terraces, canal systems, plants and trees, berms, and drainage or irrigation ditches; and archeological features that are important in defining the history of the site.</p> <p>Retaining the historic relationship between buildings, landscape features, and open space.</p>	<p>Removing or radically changing buildings and their features or site features which are important in defining the overall historic character of the building site so that, as a result, the character is diminished.</p> <p>Removing or relocating historic buildings or landscape features, thus destroying the historic relationship between buildings, landscape features, and open space.</p> <p>Removing or relocating historic buildings on a site or in a complex of related historic structures – such as a mill complex or farm – thus diminishing the historic character of the site or complex.</p> <p>Moving buildings onto the site, thus creating a false historical appearance.</p>

Building Site (continued)	
<u>Recommended</u>	<u>Not Recommended</u>
<p>Protecting and maintaining buildings and the site by providing proper drainage to assure that water does not erode foundation walls; drain toward the building; nor erode the historic landscape.</p> <p>Minimizing disturbance of terrain around buildings or elsewhere on the site, thus reducing the possibility of destroying unknown archeological materials.</p> <p>Surveying areas where major terrain alteration is likely to impact important archeological sites.</p> <p>Protecting, e.g. preserving in place known archeological material whenever possible.</p> <p>Planting and carrying out any necessary investigation using professional archeologists and modern archeological methods when preservation in place is not feasible.</p> <p>Protecting the building and other features of the site against arson and vandalism before rehabilitation work begins, i.e., erecting protective fencing and installing alarm systems that are keyed into local protection agencies.</p>	<p>Lowering the grade level adjacent to a building to permit development of a formerly below-grade area such as a basement in a manner that would drastically change the historic relationship of the building to its site.</p> <p>Failing to maintain site drainage so that buildings and site features are damaged or destroyed; or, alternatively, changing the site grading so that water no longer drains properly.</p> <p>Introducing heavy machinery or equipment into areas where their presence may disturb archeological materials.</p> <p>Failing to survey the building site prior to the beginning of rehabilitation project work so that, as a result, important archeological material is destroyed.</p> <p>Leaving known archeological material unprotected and subject to vandalism, looting and destruction by natural elements, such as erosion.</p> <p>Permitting unqualified project personnel to perform data recovery so that improper methodology results in the loss of important archeological material.</p> <p>Permitting buildings and site features to remain unprotected so that plant materials, fencing, walkways, archeological features, etc. are damaged or destroyed.</p> <p>Stripping features from buildings and the site such as wood siding, iron fencing, masonry balustrades; or removing or destroying landscape features, including plant material.</p>

<p>Building Site (continued)</p> <p><u>Recommended</u></p>	<p><u>Not Recommended</u></p>
<p>Providing continued protection of masonry, wood, and architectural metals which comprise building and site features through appropriate surface treatments such as cleaning, rust removal, limited paint removal, and re-application of protective coating systems; and continued protection and maintenance of landscape features, including plant material.</p>	<p>Failing to provide adequate protection of materials on a cyclical basis so that deterioration of building and site features results.</p>
<p>Evaluating the overall condition of materials to determine whether more than protection and maintenance are required, that is, if repairs to building and site features will be necessary.</p>	<p>Failing to undertake adequate measures to assure the preservation of building and site features.</p>
<p>Repairing features of buildings and the site by reinforcing the historic materials. Repair will also generally include replacement in kind – with a compatible substitute material – of those extensively deteriorated or missing parts of features where there are surviving prototypes such as fencing and paving.</p>	<p>Replacing an entire feature of the building or site such as a fence, walkway, or driveway when repair of materials and limited replacement of deteriorated or missing parts are appropriate.</p> <p>Using a substitute material for the replacement part that does not convey the visual appearance of the surviving parts of the building or site feature or that is physically or chemically incompatible.</p>
<p>Replacing in kind an entire feature of the building or site that is too deteriorated to repair – if the overall form and detailing are still evident – using the physical evidence to guide the new work. This could include an entrance or porch, walkway, or fountain. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.</p>	<p>Removing a feature of the building or site that is unrepairable and not replacing it; or replacing it with a new feature that does not convey the same visual appearance.</p>
<p>Design for Missing Historic Features</p> <p>Designing and constructing a new feature of a building or site when the historic feature is completely missing, such as an outbuilding, terrace, or driveway. It may be based on historical, pictorial, and physical documentation; or be a new design that is compatible with the historic character of the building and site.</p>	<p>Creating a false historical appearance because the replaced feature is based on insufficient historical, pictorial, and physical documentation.</p> <p>Introducing a new building or site feature that is out of scale or otherwise inappropriate.</p> <p>Introducing a new landscape feature or plant material that is visually incompatible with the site or that destroys site patterns or vistas.</p>

Building Site (continued)	
<u><i>Recommended</i></u>	<u><i>Not Recommended</i></u>
<p>Alterations/Additions for the New Use</p> <p>Designing new on site parking, loading docks, or ramps when required by the new use so that they are as unobtrusive as possible and assure the preservation of character-defining features of the site.</p> <p>Designing new exterior additions to historic buildings or adjacent new construction which is compatible with the historic character of the site and which preserve the historic relationship between a building or buildings, landscape features, and open space.</p> <p>Removing nonsignificant buildings, additions, or site features which detract from the historic character of the site.</p>	<p>Placing parking facilities directly adjacent to historic buildings where automobiles may cause damage to the buildings or landscape features or be intrusive to the building site.</p> <p>Introducing new construction onto the building site which is visually incompatible in terms of size, scale, design, materials, color and texture or which destroys historic relationships on the site.</p> <p>Removing a historic building in a complex, a building feature, or a site feature which is important in defining the historic character of the site.</p>

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DISTRICT NEIGHBORHOOD

The relationship between historic buildings, and streetscape and landscape features within a historic district or neighborhood helps to define the historic character and therefore should always be a part of the rehabilitation plans.

<u><i>Recommended</i></u>	<u><i>Not Recommended</i></u>
<p>Identifying, retaining, and preserving buildings, and streetscape, and landscape features which are important in defining the overall historic character of the district or neighborhood. Such features can include streets, alleys, paving, walkways, streetlights, signs, benches, parks and gardens, and trees.</p> <p>Retaining the historic relationship between buildings, and streetscape and landscape features such as town square comprised of row houses and stores surrounding a communal park or open space.</p>	<p>Removing or radically changing those features of the district or neighborhood which are important in defining the overall historic character so that, as a result, the character is diminished.</p> <p>Destroying streetscape and landscape features by widening existing streets, changing paving material, or introducing inappropriately located new streets or parking lots.</p>

District Neighborhood (continued)	
<u>Recommended</u>	<u>Not Recommended</u>
<p>Protecting and maintaining the historic masonry, wood, and architectural metals which comprise building and streetscape features, through appropriate surface treatments such as cleaning, rust removal, limited paint removal, and reapplication of protective coating systems, and protecting and maintaining landscape features, including plant material.</p> <p>Protecting buildings, paving, iron fencing, etc. against arson and vandalism before rehabilitation work begins by erecting protective fencing and installing alarm systems that are keyed into local protection agencies.</p> <p>Evaluating the overall condition of building, streetscape and landscape materials to determine whether more than protection and maintenance are required, that is, if repairs to features will be necessary.</p> <p>Repairing features of the building, streetscape, or landscape by reinforcing the historic materials. Repair will also generally include the replacement in kind – or with a compatible substitute material – of those extensively deteriorated or missing parts or features when there are surviving prototypes such as porch balustrades, paving materials, or streetlight standards.</p> <p>Replacing in kind an entire feature of the building, streetscape, or landscape that is too deteriorated to repair – when the overall form and detailing are still evident – using the physical evidence to guide the new work. This could include a storefront, a walkway, or a garden. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.</p>	<p>Removing or relocating historic buildings, or features of the streetscape and landscape, thus destroying the historic relationship between buildings, features, and open space.</p> <p>Failing to provide adequate protection of materials on a cyclical basis so that deterioration of building, streetscape, and landscape features results.</p> <p>Permitting buildings to remain unprotected so that windows are broken; and interior features are damaged.</p> <p>Stripping features from buildings or the streetscape such as wood siding, iron fencing, or terra cotta balusters; or removing or destroying landscape features, including plant material.</p> <p>Failing to undertake adequate measures to assure the preservation of building, streetscape, and landscape features.</p> <p>Replacing an entire feature of the building, streetscape, or landscape such as a porch, walkway, or streetlight, when repair of materials and limited replacement of deteriorated or missing parts are appropriate.</p> <p>Using a substitute material for the replacement part that does not convey the visual appearance of the surviving parts of the building, streetscape, or landscape feature or that is physically or chemically incompatible.</p> <p>Removing a feature of the building, streetscape, or landscape that is unrepairable and not replacing it; or replacing it with a new feature that does not convey the same visual appearance.</p>

District Neighborhood (continued) <u><i>Recommended</i></u>	<u><i>Not Recommended</i></u>
<p>Design for Missing Historic Features</p> <p>Designing and constructing a new feature of the building, streetscape or landscape when the historic feature is completely missing, such as row house steps, a porch, streetlight, or terrace. It may be a restoration based on historical, pictorial, and physical documentation; or be a new design that is compatible with the historic character of the district or neighborhood.</p> <p>Alterations/Additions for the New Use</p> <p>Designing required new parking so that it is as unobtrusive as possible, i.e., on side streets or at the rear of buildings. "Shared" parking should also be planned so that several businesses can utilize one parking area as opposed to introducing random, multiple lots.</p> <p>Designing and constructing new additions to historic buildings when required by the new use. New work should be compatible with the historic character of the district or neighborhood in terms of size, scale, design, material, color and texture.</p> <p>Removing nonsignificant buildings, additions, or streetscape and landscape features which detract from the historic character of the district or the neighborhood.</p>	<p>Creating a false historical appearance because the replaced feature is based on insufficient historical, pictorial, and physical documentation.</p> <p>Introducing a new building, streetscape or landscape feature that is out of scale or otherwise inappropriate to the setting's historic character, e.g. replacing picket fencing with chain link fencing.</p> <p>Placing parking facilities directly adjacent to historic buildings which cause the removal of historic plantings, relocation of paths and walkways, or blocking of alleys.</p> <p>Introducing new construction into historic districts that is visually incompatible or that destroys historic relationships within the district or neighborhood.</p> <p>Removing a historic building, building feature, or landscape or streetscape feature that is important in defining the overall historic character of the district or the neighborhood.</p>

The aforementioned work is highlighted in bold to indicate that it represents the particularly complex technical or design aspects of rehabilitation projects and should only be considered after the preservation concerns listed above have been addressed.

Although the work in these sections is quite often an important aspect of rehabilitation projects, it is usually *not part* of the overall process of preserving character-defining features (maintenance, repair, replacement); rather, such work is assessed for its potential negative impact on the building's historic character. For this reason, particular care must be taken not to obscure, radically change, damage, or destroy character-defining features in the process of rehabilitation work to meet new use requirements.

HEALTH AND SAFETY CODE REQUIREMENTS

As a part of the new use, it is often necessary to make modifications to a historic building so that it can comply with current health, safety and code requirements. Such work needs to be carefully planned and undertaken so that it does not result in a loss of character-defining spaces, features, and finishes.

<u><i>Recommended</i></u>	<u><i>Not Recommended</i></u>
Identifying the historic building's character-defining spaces, features, and finishes so that code required work will not result in their damage or loss.	Undertaking code-required alterations to a building or site before identifying those spaces, features, or finishes which are character-defining and must therefore be preserved.
Complying with health and safety code, including seismic codes and barrier-free access requirements, in such a manner that character-defining spaces, features, and finishes are preserved.	Altering, damaging, or destroying character-defining spaces, features, and finishes while making modifications to a building or site to comply with safety codes.
Working with local code officials to investigate alternative life safety measures or variances available under some codes so that alterations and additions to historic buildings can be avoided.	Making changes to historic buildings without first seeking alternatives to code requirements.
Providing barrier-free access through removable or portable, rather than permanent, ramps.	Installing permanent ramps that damage or diminish character-defining features.
Providing seismic reinforcement to a historic building in a manner that avoids damaging the structural system and character-defining features.	Reinforcing a historic building using measures that damage or destroy character-defining structural and other features.
Upgrading historic stairways and elevators to meet health and safety codes in a manner that assures their preservation, i.e. so that they are not damaged or obscured.	Damaging or obscuring historic stairways and elevators or altering adjacent spaces in the process of doing work to meet code requirements.
Installing sensitively designed fire suppressions systems, such as a sprinkler system for wood frame mill buildings, instead of applying fire-resistant sheathing to character-defining features.	Covering character-defining wood features with fire-resistant sheathing which results in altering their visual appearance.
Applying fire-retardant coatings, such as intumescent paints, which expand during fire to add thermal protection to steel.	Using fire-retardant coatings if they damage or obscure character-defining features.
Adding a new stairway or elevator to meet health and safety codes in a manner that preserves adjacent character-defining features and space.	Radically changing, damaging, or destroying character-defining spaces, features, or finishes when adding a new code required stairway or elevator.

Health and Safety Code Requirements (continued)	
<u>Recommended</u>	<u>Not Recommended</u>
<p>Placing a code-required stairway or elevator that cannot be accommodated within the historic building in a new exterior addition. Such an addition should be located at the rear of the building or an inconspicuous side; and its size and scale limited in relationship to the historic building.</p>	<p>Constructing a new addition to accommodate code-required stairs and elevators on character-defining elevations highly visible from the street; or where it obscures, damages or destroys character-defining features.</p>

ENERGY RETROFITTING

Some character-defining features of a historic building or site such as cupolas, shutters, transoms, skylights, sun rooms, porches, and plantings also play a secondary energy conserving role. Therefore, prior to retrofitting historic buildings to make them more energy efficient, the first step should always be to identify and evaluate the existing historic features to assess their inherent energy conserving potential. If it is determined that retrofitting measures are necessary, then such work needs to be carried out with particular care to insure that the building's historic character is preserved in the process of rehabilitation.

<u>Recommended</u>	<u>Not Recommended</u>
<p>District/Neighborhood</p> <p>Maintaining those existing landscape features which moderate the effects of the climate on the setting such as deciduous trees, evergreen wind-blocks, and lakes or ponds.</p> <p>Building Site</p> <p>Retaining plant materials, trees, and landscape features, especially those which perform passive solar energy functions, such as sun shading and wind breaks.</p> <p>Installing freestanding solar collectors in a manner that preserves the historic property's character-defining features.</p> <p>Designing attached solar collectors, including solar greenhouses, so that the character-defining features of the property are preserved.</p>	<p>Stripping the setting of landscape features and landforms so that the effects of the wind, rain, and the sun result in accelerated deterioration of historic materials.</p> <p>Removing plant materials, trees, and landscape features, so that they no longer perform passive solar energy functions.</p> <p>Installing freestanding solar collectors that obscure, damage, or destroy historic landscape or archeological features.</p> <p>Locating solar collectors where they radically change the property's appearance; or damage or destroy character-defining features.</p>

<p>Energy Retrofitting (continued)</p> <p><u>Recommended</u></p>	<p><u>Not Recommended</u></p>
<p>Masonry/Wood/Architectural Metals</p> <p>Installing thermal insulation in attics and in unheated cellars and crawlspaces to increase the efficiency of the existing mechanical systems.</p> <p>Installing insulating material on the inside of masonry walls to increase energy efficiency where there is no character-defining interior moulding around the window or other interior architectural detailing.</p> <p>Installing passive solar devices such as a glazed “trombe” wall on a rear or inconspicuous side of the historic building.</p>	<p>Applying urea of formaldehyde foam or any other thermal insulation with a water content into wall cavities in an attempt to reduce energy consumption.</p> <p>Resurfacing historic building materials with more energy efficient but incompatible materials, such as covering historic masonry with exterior insulation.</p> <p>Installing passive solar devices such as an attached glazed “trombe” wall on primary or other highly visible elevations; or where historic material must be removed or obscured.</p>
<p>Roofs</p> <p>Placing solar collectors on non-character-defining roofs or roofs of non-historic-adjacent buildings.</p>	<p>Placing solar collectors on roofs when such collectors change the historic roofline or obscure the relationship of the roof to character-defining roof features, such as dormers, skylights, and chimneys.</p>
<p>Windows</p> <p>Utilizing the inherent energy conserving features of a building by maintaining windows and louvered blinds in good operable condition for natural ventilation.</p> <p>Improving thermal efficiency with weather-stripping, storm windows, caulking, interior shades, and, if historically appropriate, blinds and awnings.</p> <p>Installing interior storm windows with airtight gaskets, ventilating holes, and/or removable clips to insure proper maintenance and to avoid condensation damage to historic windows.</p>	<p>Removing historic shading devices rather than keeping them in an operable condition.</p> <p>Replacing historic multi-paned sash with new thermal sash utilizing false muntins.</p> <p>Installing interior storm windows that allow moisture to accumulate and damage the window.</p>
<p>Installing exterior storm windows which do not damage or obscure the windows and frames.</p>	<p>Installing new exterior storm windows which are inappropriate in size or color and which are inoperable.</p>

Energy Retrofitting (continued)	
<u>Recommended</u>	<u>Not Recommended</u>
<p>Considering the use of lightly tinted glazing on non-character defining elevations if other energy retrofitting alternatives are not possible.</p>	<p>Replacing windows or transoms with fixed thermal glazing or permitting windows and transoms to remain inoperable rather than utilizing them for their energy conserving potential.</p> <p>Using tinted or reflective glazing on character-defining or other conspicuous elevations.</p>
<p>Entrances and Porches</p>	
<p>Utilizing the inherent energy conserving features of a building by maintaining porches, and double vestibule entrances in good condition so that they can retain heat or block the sun and provide natural ventilation.</p>	<p>Enclosing porches located on character-defining elevations to create passive solar collectors on airlock vestibules. Such enclosures can destroy the historic appearance of the building.</p>
<p>Interior Features</p>	
<p>Retaining historic interior shutters and transoms for their inherent energy conserving features.</p>	<p>Removing historic interior features which play a secondary energy conserving role.</p>
<p>New Additions to Historic Buildings</p>	
<p>Placing new additions that have an energy conserving function, such as a solar greenhouse on non-character-defining elevations.</p>	<p>Installing new additions, such as multistory solar greenhouses additions, which obscure, damage, destroy character-defining features.</p>
<p>Mechanical Systems</p>	
<p>Installing thermal insulation in attics and in unheated cellars and crawlspaces to conserve energy.</p>	<p>Apply urea formaldehyde foam or any other thermal insulation with a water content or that may collect moisture into wall cavities</p>

NEW ADDITIONS TO HISTORIC BUILDINGS

An attached exterior addition to a historic building expands its “outer limits” to create a new profile. Because such expansion has the capacity to radically change the historic appearance, an exterior addition should be considered only after it has been determined that the new use cannot be successfully met by altering non-character-defining *interior* spaces. If the new use cannot be this way, then an attached exterior addition is usually an acceptable alternative. New additions should be designed and constructed so that the character-defining features of the historic building are not radically changed, obscured, damaged, or destroyed in the process of rehabilitation. New design should always be clearly differentiated so that the addition does not appear to be part of the historic resources.

<u>Recommended</u>	<u>Not Recommended</u>
Placing functions and services required for the new use in non-character-defining interior spaces rather than installing a new addition.	Expanding the size of the historic building by constructing a new addition when the new use could be met by altering non-character-defining interior spaces.
Constructing a new addition so that there is the least possible loss of historic materials and so that character-defining features are not obscured, damaged, or destroyed.	Attaching a new addition so that the character-defining features of the historic building are obscured, damaged, or destroyed.
Locating the attached exterior addition at the rear or on an inconspicuous side of a historic building; and limiting its size and scale in relationship to the historic building.	Designing a new addition so that its size and scale in relation to the historic building are out of proportion, thus diminishing the historic character.
Designing new additions in a manner that makes clear what is historic and what is new.	Duplicating the exact form, material, style, and detailing of the historic building in the new addition so that the new work appears to be part of the historic building.
	Imitating a historic style or period of architecture in new additions, especially for contemporary uses such as drive-in banks or garages.
Considering the attached exterior addition both in terms of the new use and the appearance of other buildings in the historic district or neighborhood. Design for the new work may be contemporary or may reference design motifs from the historic building. In either case, it should always be clearly differentiated from the historic building and be compatible in terms of mass, materials, relationship of solids to voids, and color.	Designing and constructing new additions that result in the diminution or loss of the historic character of the resource, including its design, materials, workmanship, location, or setting.
	Using the same wall plane, roof line, cornice height, materials, siding lap or window type to make additions appear to be a part of the historic building.
Placing new additions such as balconies and greenhouses on non-character-defining elevations and limiting the size and scale in relationship to the historic building.	Designing new additions such as multistory greenhouse additions that obscure, damage, or destroy character-defining features of the historic building.

New Additions to Historic Buildings (continued)	
<u><i>Recommended</i></u>	<u><i>Not Recommended</i></u>
Designing additional stories, when required for the new use, that are set back from the wall plane and are as inconspicuous as possible when viewed from the street.	Constructing additional stories so that the historic appearance of the building is radically changed.